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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,797	02/07/2002	Jeffrey Rodman	PA1094US	3595

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EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,797

Applicant(s)

RODMAN ET AL.

Examiner

Kevin Schubert

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-20 have been considered.

Title

- 5 The title is not descriptive. The examiner suggests "Method for Acoustically Transmitting an Encryption Key". Appropriate correction is suggested but not required.

Claim Rejections - 35 USC § 102

- 10 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- 15 (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 20 Claims 1,5-6,9-10,16-17, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneier, (Schneier, Bruce. Applied Cryptography. John Wiley & Sons. 1996. Washington D.C. pages 176-183).

- 25 As per claims 1,10, and 20, the applicant describes a method for secure data transfer comprising the following limitations which are met by Schneier:

a) generating an encryption key within a first device of the communication system (page 176);

b) encoding the encryption key to form an encoded signal (pages 176-177);

- 30 c) transmitting the encoded signal to a second device of the communication system remote from the first device (pages 176-177);

d) decoding the encoded signal at the second device to extract the encryption key (pages 176-177);

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e) using the encryption key to encrypt and decrypt data for subsequent wireless transmissions between the first and second devices (page 176);

Schneier discloses a key encrypting key protocol. In this protocol a first device, Alice, generates an encryption key which she wants to send to a second device, Bob, so that the two can use the key to encrypt over a communication channel (page 176) (parts a and e). Since Alice does not want to send the encryption key in the clear over the communication channel they are going to use for encrypted communication, Alice encodes the encryption key with a second key which both Alice and Bob have. The encoded signal is sent to Bob so that Bob can decode the encoded signal with the second key to obtain the encryption key (pages 176-177) (parts b,c, and d).

As per claims 5,16, and 17, the applicant discloses the limitations of claims 1 and 10, which are met by Schneier, with the following limitation which is also met by Schneier:

Further comprising an encryption/decryption module in the first and second devices for encrypting data for transmission and decrypting data received from the other device (pages 176-177).

As per claims 6 and 9, the applicant describes the method of claim 1, which is met by Schneier, with the following limitation which is also met by Schneier:

Wherein the step of decoding further comprises the step of performing error detection to determine if an error has occurred in connection with the reception of decoding of the encryption key (page 178).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 and 11-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Schneier in view of Stein, U.S. Patent No. 6,297,892.

5 As per claims 2 and 3, the applicant describes the method of claim 1, which is met by Schneier, with the following limitation which is met by Stein:

Wherein the acoustic signal is DTMF tones (Stein: Col 3, lines 45-53);

Schneier discloses all the limitations of claim 1. However, Schneier is silent as to how data is transmitted between Alice and Bob. Stein discloses a method of securely transmitting data in which
10 encrypted data is transmitted between two entities as DTMF tones.

It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of Stein with Schneier because sending encrypted data as DTMF tones is an efficient way to pass data in transmission/reception systems which operate on DTMF frequencies.

15 As per claims 11-15, the applicant describes the system of claim 10, which is met by Schneier, with the following limitation which is met by Stein:

Wherein the first device further comprises an encoder device for encoding the encryption key into an encoded signal for transmission (Stein: 18 of Fig 1);

Stein discloses the use of a DTMF codec (18 of Fig 1) which encodes a signal for transmission.

20 Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneier in view of Rallis, U.S. Patent No. 6,425,084.

As per claim 4, the applicant describes the method of claim 1, which is met by Schneier, with the
25 following limitation which is met by Rallis:

Wherein the encoded signal is an infrared signal (Rallis: Col 5, lines 44-57);

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Schneier discloses all the limitations of claim 1. However, Schneier is silent as to how data is transmitted between Alice and Bob. Rallis discloses a method for securely transmitting data in which an encryption key is transmitted between two entities as an infrared signal.

5 It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of Rallis with Schneier because sending data as an infrared signal is an efficient way to pass data in a transmission/reception system which operates on infrared frequencies.

Claims 8, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneier in view of Campbell, U.S. Patent No. 6,792,112.

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As per claims 8, 18, and 19, the applicant describes the method of claims 1 and 10, which are met by Schneier, with the following limitation which is met by Campbell:

Wherein the step of using the encryption key to encrypt and decrypt subsequent wireless transmissions further comprises the step of encoding the data into radio frequency signals (Campbell: Col
15 3, line 51 to Col 4, line 2);

Schneier discloses all the limitations of claim 1. However, Schneier is silent as to how data is transmitted between Alice and Bob. Campbell discloses a method for securely transmitting data in which data is transmitted between two entities as a radio frequency signal.

20 It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of Campbell with Schneier because sending data as an RF signal is an efficient way to pass data in a transmission/reception system which operates on RF frequencies.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneier in view of Doberstein, 5,809,148.

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As per claim 7, the applicant describes the method of claim 6, which is met by Schneier, with the following limitation which is met by Doberstein:

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Further comprising the step of sending a request for retransmission of the encoded signal if an error is detected (Doberstein: Col 3, lines 3-19);

Schneier discloses all the limitations of claim 6. However, Schneier does not disclose sending a request for retransmission of a signal if an error is detected. Doberstein discloses a system in which a request for retransmission of a signal comprising encrypted data is sent to the sender of the data if an error is detected. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Doberstein with those of Schneier because doing so allows the system to make a request for retransmission of data so that the encryption key can still be built even if data is initially not received properly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew D. Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
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